CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2008 Certified Company

ISO 9001:2000 CERTIFIED

› No.: CQCE/BBMP/KTR/W.No.15/2017-18 Date : 05.03.2018

GRADATION FOR GSB(Coarse Graded-1)
IS : 2720 (Part - 4)

ent : **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.

ncy : **Sri. K.T Ramesh,** Contractor, Bangalore.

ne of work : Improvements and Re-Asphalting of Road from 5th & 6th Cross Road Kempegowda Nagara & Ramachandra Hospital Road Bhuvaneshwari Nagara in Dasarahalli Ward No.15, BBMP, Bangalore.

: of Testing : 05.03.2018

ple Source : Mix Plant Bangalore. **Oven Dry Wt (gm) :** 5000

LE – 1

eve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified Limits
75	-	-	-	100	100
26.5	1632	1632	32.64	67.36	55-75
4.75	2381	4013	80.26	19.74	10-30
.075	692	4705	94.10	5.90	<10

ks: Satisfies MORTH Specifications as per Table 400-2, Grading I

eport shall not be reproduced, except in full, without the written approval of the laboratory.
esults indicated above are based on the tests carried out on the samples received in the laboratory.
Query regarding the report must be reported within 30 days from the date of testing.

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For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರ
ಟಿ.ದಾಸರಹಳ್ಳಿ ಉಪ-ವಿಭಾಗ
ಬಾಗಲಗುಂಟೆ, ಬಿಬಿಎಂಪಿ
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Job No.: CQCE/BBMP/KTR/W.No.15/2017-18 Date : 09.03.2018

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.
Agency : **Sri. K.T Ramesh,** Contractor, Bangalore.
Name of Work : Improvements and Re-Asphalting of Road from 5th & 6th Cross Road Kempegowda Nagara & Ramachandra Hospital Road Bhuvaneshwari Nagara in Dasarahalli Ward No.15, BBMP, Bangalore.

Date of Testing : 09.03.2018
Material Type : Wet Mix Macadam

Oven Dry Wt (gm): **10000**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	261	261	2.6	97.4	95-100
22.4	2584	2845	28.5	71.6	60-80
11.2	2635	5480	54.8	45.2	40-60
4.75	1754	7234	72.3	27.7	25-40
2.36	1165	8399	84.0	16.0	15-30
0.600	532	8931	89.3	10.7	8-22
0.075	551	9482	94.8	5.2	0-8

Note:

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For CIVIL QUALITY CONSULTANTS & ENGINEER

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ಬಿ.ದಾಸರಹಳ್ಳಿ ವಿಭಾಗ-ಪಶ್ಚಿಮ
ಬಾಗಲಗುಂಟೆ, ಬಿಬಿಎಂಪಿ

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Job No.: CQCE/BBMP/KTR/W.No.15/2017-18 Date: 09.03.2018

Aggregate Impact Value

IS: 2386 Part IV

Client	**Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.
Agency	**Sri. K.T Ramesh,** Contractor, Bangalore.
Name of the Work	Improvements and Re-Asphalting of Road from 5th & 6th Cross Road Kempegowda Nagara & Ramachandra Hospital Road Bhuvaneshwari Nagara in Dasarahalli Ward No.15, BBMP, Bangalore.
Type of Mix	Wet Mix Macadam
Date of Testing	09.03.2018

Sl No.	Details	Trial No. 1	Trial No. 2	Trial No. 3	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	376	375	378	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	89	88	90	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	287	287	288	
4	Aggregate Impact value = percent fines 100* (W_2/W_1)%	23.67	23.47	23.81	23.65

Comments:

- Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

Note:

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Job No.: CQCE/BBMP/KTR/W.No.15/2017-18

Date: 13.03.2018

TEST REPORT

Client	:	**Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.
Agency	:	**Sri. K.T Ramesh,** Contractor, Bangalore.
Name of the work	:	Improvements and Re-Asphalting of Road from 5th & 6th Cross Road Kempegowda Nagara & Ramachandra Hospital Road Bhuvaneshwari Nagara in Dasarahalli Ward No.15, BBMP, Bangalore.
Source of location	:	Hot mix Plant, Bangalore
Date of testing	:	13.03.2018

The results of the tests conducted on the bitumen sample using for Dense Graded Bituminous Macadam

Sl. No	Description	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 ^{0}C, 1/10 mm	86	80 to 100
2	Softening point, ^{0}C	48	Min. 40
3	Ductility at 27^{0}C, cm	100 >	Min. 50
4	Flash Point, ^{0}C	367	Min. 220

Note:

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Job No.: CQCE/BBMP/KTR/W.No.15/2017-18 13.

Aggregate Gradation Test
IS : 2386 Part I

Client	**Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.
Agency	**Sri. K.T Ramesh,** Contractor, Bangalore.
Name of the work	Improvements and Re-Asphalting of Road from 5th & 6th Cross Road Kempegowda Nagara & Ramachandra Hospital Road Bhuvaneshwari N Dasarahalli Ward No.15, BBMP, Bangalore.
Sample ID	Hotmix Plant, Bangalore.
Type of Mix	Dense Graded Bituminous Macadam
Date of Testing	13.03.2018

5000 gm

SIEVE SIZE, mm	Weight Retained, gm	% Retained	Cummulative % Retained	% Passing	Grade-II As per MORTH	Rer
26.5	0	0	0	100	100	Gra
19	362	7.24	7.24	92.76	90-100	satisfie
13.2	1685	33.70	40.94	59.06	56-88	II M
4.75	1296	25.92	66.86	33.14	16-36	speci
2.36	821	16.42	83.28	16.72	4-19	
0.3	403	8.06	91.34	8.66	2-10	
0.075	186	3.72	95.06	4.94	0-8	

Total Weight of Sample: **5000** gm

SIEVE SIZE, mm	Weight Retained, gm	% Retained	Cummulative % Retained	% Passing	Grade-II As per MORTH	Re
26.5	0	0	0	100	100	Gr
19	296	5.92	5.92	94.08	90-100	satisf
13.2	1684	33.68	39.60	60.40	56-88	II M
4.75	1328	26.56	66.16	33.84	16-36	spe
2.36	562	11.24	77.40	22.60	4-19	
0.3	758	15.16	92.56	7.44	2-10	
0.075	186	3.72	96.28	3.72	0-8	

Note:

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Job No.: CQCE/BBMP/KTR/W.No.15/2017-18 13.03.2018

Aggregate Impact Value

IS: 2386 Part IV

Client	**Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.
Agency	**Sri. K.T Ramesh,** Contractor, Bangalore.
Name of the Work	Improvements and Re-Asphalting of Road from 5th & 6th Cross Road Kempegowda Nagara & Ramachandra Hospital Road Bhuvaneshwari Nagara in Dasarahalli Ward No.15, BBMP, Bangalore.
Source / Location	Hotmix Plant, Bangalore
Type of Mix	Dense Graded Bituminous Macadam
Date of Testing	13.03.2018

Sl No.	Details	Trial No. 1	Trial No. 2	Trial No. 3	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	382	385	383	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	93	96	94	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	289	289	289	
4	Aggregate Impact value = percent fines	24.35	24.94	24.54	
	100* (W_2/W_1)%				24.61

Comments:

→ Maximum allowable Aggregate Impact value for Bituminous Macadam is 30%

Note:

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ಟಿ.ದಾಸರಹಳ್ಳಿ ಉಪ-ವಿಭಾಗ

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